

AMENDMENTS TO THE CLAIMS

Claims 1-13 (Canceled).

14. (Previously presented) A method of obtaining dendritic cells, comprising:

- 1) cultivating for 4 to 6 days, mononuclear cells derived from cytopheresis after mobilization, in a serum-free medium supplemented with human albumin at a rate of 1 to 2% w/v of medium, in the presence of a granulocyte-macrophage colony stimulating factor (GM-CSF) and an interleukin (IL) that blocks differentiation towards the macrophagic pathway;
- 2) adding TNF- α and optionally an inflammatory mediator to the culture medium and continuing the culture for about a further 1 to 4 days; and
- 3) recovering the dendritic cells formed.

15. (Previously presented) A method according to Claim 14 wherein step 1) is carried out for 5 days and step 2) for 2 days.

16. (Previously presented) A method according to Claim 14 wherein the interleukin that blocks differentiation towards the macrophagic pathway is interleukin-4 or interleukin-13.

17. (Canceled).

18. (Previously presented) A method according to Claim 14 wherein the tumor necrosis factor alpha (TNF- α) and prostaglandin E2 (PGE2) are added in step 2).

19. (Previously presented) A method according to Claim 14 wherein the mononuclear cells are obtained by cytopheresis after mobilization by chemotherapy and/or with at least one cell growth factor.

20. (Previously presented) A method according to Claim 14 wherein GM-CSF, the interleukin that blocks differentiation towards the macrophagic pathway, and TNF- α are each used at a rate of 1 to 1000 ng/ml of medium.

Claim 21 (Canceled).

22. (Previously presented) A method according to Claim 14 wherein human albumin is used at a rate of 2% w/v of medium.

23. (Withdrawn) A method of immunotherapeutic treatment, comprising:

1) obtaining mononuclear cells from a patient to be treated by cytopheresis after mobilization by chemotherapy and/or with a cell growth factor and optionally freezing/thawing;

2) cultivating, for 4 to 6 days, mononuclear cells derived from cytopheresis after mobilization, in a serum-free medium supplemented with human albumin, in the presence of a granulocyte-macrophage colony stimulating factor (GM-CSF) and an interleukin (IL) that blocks differentiation towards the macrophagic pathway;

3) adding TNF- α and optionally an inflammatory mediator to the culture medium and continuing the culture for about a further 1 to 4 days while activating them with specific antigens;

4) recovering the dendritic cells formed and activated in this way; and

5) reinjecting said dendritic cells into said patient.

24. (Withdrawn) A method according to Claim 23 wherein the dendritic cells are frozen/thawed before being reinjected into said patient.

25. (New) A method according to Claim 14 wherein the mononuclear cells are mobilized by a member selected from the group consisting of granulocyte mononuclear stimulating factors (G-CSF) and granulocyte-macrophage colony stimulating factors (GM-CSF).

26. (New) A method according to Claim 14 wherein the mononuclear cells are selected from the group consisting of monocytes, lymphocytes and hemopoietic stem cells.